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The Social History Questionnaire as a Predictor of Therapeutic Outcome

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THE SOCIAL HISTORY QUESTIONNAIRE AS A PREDICTOR OF THERAPEUTIC OUTCOME

(TITLE)

BY

Susan E. Suter

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF

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IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
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ABSTRACT OF A THESIS

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Abstract

One of the most critical problems encountered in clinical practice concerns the outcome criteria used for predicting therapeutic improvement. At present, there is no single outcome criteria that is universally accepted as evidence of improvement. Representative studies by Luborsky et al (1971) have emphasized the magnitude of this problem by citing the many patient variables that may effect the outcome of a therapeutic relationship.

The importance of this therapeutic relationship in terms of time and committment on the part of both the therapist and the client, necessitates some objective means for first, the development of an instrument that can measure outcome criteria, and second, the development of a scale that can measure therapeutic outcome.

Like Luborsky et al (1971), Bergin and Garfield (1971), cite some additional client variables that may determine whether or not a client will improve. These variables have been incorporated in the Social History Questionnaire (SHQ), a paper and pencil intake inventory (Best, 1971), that was used in this study.

The present study was designed to construct a Therapeutic-Outcome scale using those items of the SHQ that best differentiated between the "improved" and the "not improved" groups of clients.

Ss were 100 outpatients who had completed the SHQ. Ss were divided into six groups, the total "improved" group, the total "not improved" group, the male "improved" group, the male "not improved" group, the female "improved" group, and the female "not improved" group, according to their therapists' ratings of "improved" or "not improved." The groups were then compared in terms of their responses to the SHQ. Of

393 SHQ items, 26 items were found to differentiate between the total "improved" and "not improved" groups; 30 items were found to differentiate between the male "improved" and "not improved" group, and 33 items were found to differentiate between the female "improved" and "not improved" group.

INTRODUCTION

Because psychotherapy demands a relationship of considerable time and committment on the part of both the patient and the therapist, the concept of predicting the success or failure of this relationship is an important one. Yet, due to the nature of this relationship, the two most important variables for predicting outcome, the patient and therapsit variables, are difficult to measure and manipulate externally. The problem of deriving a scale to measure these variables as they relate to therapeutic outcome is a difficult one, as past research has indicated (Harris and Christiansen, 1946; Barron, 1953; and Rogers and Hammond, 1953). Because of the discrepancies found in previous therapeutic outcome scales, this study was designed to develop, by using the Social History Questionnaire (Best, 1971), a more adequate scale for predicting therapeutic outcome.

Since this study is concerned with the Social History Questionnaire, a paper and pencil inventory filled out by the patient, only one of the two critical predictive variables will be examined - the variables identifying patient characteristics that effect therapeutic outcome. Luborsky et al (1971) present a comprehensive review of the research that has been done to measure these predictive patient variables:

1. Adequacy of General Personality Functioning

   Initially more disturbed patients do not improve as much as the initially less disturbed patients do. Aronson and Weintraub (1968) found that change during therapy, when it begins, is relatively rapid. However, in an additional study, Aronson and Weintraub (1969) found that the presence of severe anxiety did not predict success or failure.

2. Diagnosis

   The more serious the diagnosis, the lesser the improvement. (Aronson & Weintraub, 1968; Barron, 1953). Prager and Garfield

(1972) found that measures of felt disturbance were negatively correlated with ratings of outcome.

3. Motivation and/or Expectation

Gliedman, Stone, Frank, Nash, and Imber (1957) found that the type of motivation is not predictive. Appelbaum (1958) found that the type of transference expectation is also not predictive.

4. Intelligence

Studies based on the Wechsler Intelligence Test (Barron, 1953), (Fiske et al, 1964), show that patients with higher initial intelligence perform better in psychotherapy.

5. Anxiety

Patients with high anxiety at the initial evaluation are the ones most likely to benefit (Gottschalk et al, 1957; Kirtner & Cartwright, 1958). Almost any affect is better than no affect and anxiety and depression are the two "best" initial affects. Stone et al (1961) and Truax et al (1966) found that the number of complaints on the Symptomatic Check List is a positive sign of therapeutic progress.

6. Ethnocentrism

Barron (1953) and Tougas (1954) found that ethnocentrism is a negative predictor of therapeutic improvement.

7. Defensiveness

Strupp et al (1963) and Zolik and Hollon (1960) found defensiveness negatively correlated to therapeutic success.

8. Somatic Concern

Rosenburg (1954) and Stone et al (1961) found somatic concerns to be negative indicators of change.

9. Self-awareness, Insight, and Sensitivity

Conrad (1952) and Rosenburg (1954) found these variables positively related to successful treatment. Raskin (1949) and Rosenbaum et al (1956) found these variables to be non-significant.

10. Sex

Three studies (D. Cartwright, 1955; Gaylin, 1966; and Hamburg et al, 1967) indicate that both sexes have the same chance for improvement in therapy. Mintz, Luborsky, and Auerbach (1971), and Seeman (1954), indicate that women show greater improvement in therapy.

11. Social Achievements

Bloom (1956), Casner (1950), and Hamburg et al (1967) concluded that patients with higher social achievements are better suited for therapy. Educational achievement has the most support.

12. Student Status

D. Cartwright (1955), Casner (1950), and Rogers and Dymond (1954), suggest that being a student is associated with improvement.

It can be concluded from Luborsky's study that there are several critical initial patient variables that effect therapeutic outcome: (1) adequate personality functioning, (2) higher intellectual skills, (3) higher motivation and expectation, (4) presence of affects, especially anxiety and depression, (5) younger patients, (6) higher education, and (7) patients capable of deeply experiencing and reflecting their experiences. Thus, if a therapist feels that patients are truly altered by the experience of psychotherapy, it should be possible and desireable to measure these patient variables and the changes which the variables produce.

Rosenthal (1963) describes one problem in measuring patient variables in his statement that "experimental outcome-orientation bias is both a fairly general and a fairly robust phenomenon" (p. 271). In other words, the emotionally involved psychotherapy participants may bias the data they produce in support of their orientations, expectations, and wishes in the direction of "successful" results. A study by Prager and Garfield (1972) supports the idea of "bias" when they conclude that the most favorable evaluation of change comes from those involved in the therapeutic process - the client and the therapist. While the client and therapist are optimistic about the client's

improvement, the supervisors, as a result of experience, appear to be less optimistic, perhaps because they are aware of the difficulties involved with a more seriously disturbed patient.

In opposition to Rosenthal, however, another theory of "reversed bias" has been offered by some researchers. In "reversed bias" the patient either becomes more willing to admit psychopathology, or the therapist shows "invalid premature freezing" in rating the patient's progress. One such researcher who supports this view is John Steinhelber (1970) who asked therapists to rate fifty-four male veterans on the Interpersonal Behavior Inventory (IBI). Sixteen therapists were randomly divided into two "biased" groups based on their intermediate ratings on only one factor of the IBI test. The mistrust (Mis) factor was rated by eight therapists, while the inhibition (Inh) factor was rated by the remaining eight therapists. The results showed that as a result of psychotherapy, none of the differences in factor changes between the two groups was significant. Thus, Steinhelber concluded that experimenter bias may not be as general as Rosenthal implied, and it may involve "reverse bias" as well as the more frequently proposed exaggeration of improvement.

In another study investigating "bias," Rae Carlson (1969) demonstrated that the problem of therapist "bias" is not a critical factor. Carlson concluded that because the therapist has worked directly with the patient for some length of time, he, the therapist, knows the patient intimately and is therefore qualified to rate the patient's improvement.

Another problem in predicting therapeutic outcome involves the criterion variables used in research. From their review of the liter-

ature, Goldman and Mendelsohn (1969) conclude that there is a marked consensus among therapists concerning an emphasis on goals instead of the means of achieving these goals. These researchers also found that therapists adhere to external criteria set up by society, rather than using their own values for a frame of reference. Adjustment, not actualization, seems to be the main goal of the therapist, and the "cured" patient is very well adapted to his environment. The criterion for termination is social effectiveness, not self-actualization.

In spite of the problems and the numerous variables encountered when predicting therapeutic outcome, many tests and scales have been used to measure the success of psychotherapy. Early research on therapeutic outcome used the Minnesota Multiphasic Personality Inventory (MMPI), the Wechsler-Bellevue Scale, and the Rorschach Inkblot Test to predict therapeutic improvement.

In one such early study, Harris and Christiansen (1946) attempted to match pre-therapy test results of fifty-three non-psychotic patients with their success in psychotherapy. The Wechsler-Bellevue scale and the Rorschach yielded no real differences between the highly improved group and the less improved group. However, four MMPI scales, Sc, Pa, Ma, and Pd, revealed significant differences between groups with high scores and were contra-indications to a favorable therapeutic outcome.

Frank Barron (1953) devised an ego-strength scale as a predictor of therapeutic outcome. The scale consisted of sixty-eight items selected from a pool of 550 MMPI items. The scale was designed to predict whether or not the thirty-three patients would improve after six months of therapy. In addition, the experimenter listed the pre-therapy characteristics that would distinguish the improved from

the unimproved patients. From his study, Barron concluded that a significant determinant of personality change in psychotherapy is the strength of the ego before therapy begins. Such strength, not often evident at first, is latent and emerges as therapy progresses.

In another study with the clinic outpatients, Barron (1953) used a pre-therapy test battery that included: (1) the Wechsler-Bellevue Intelligence Scale, (2) the MMPI, (3) the Rorschach Psychodiagnostic, and (4) the Ethnocentrism Scale from the University of California Public Opinion Study Scales, as predictors of therapeutic outcome. From his research, Barron concluded: (1) intelligence and improvement are positively correlated at the .01 level (this was contradictory to the study done by Harris and Christiansen, (1946)); (2) only on the MMPI Paranoia (Pa) scale was there a significant difference between the improved and the unimproved, with the unimproved groups scoring higher on all scales, peaking on the Schizophrenia (Sc) scale, and with T-scores above 70 on the Psychasthenia (Py) and Depression (D) scales; (3) the Clinical Psychologists had an average accuracy of only 62% in predicting outcome; (4) the two groups did not differ on any determinant or ratio on the Rorschach, and experienced Rorschach interpreters were not able to predict the outcome, and finally, (5) Barron concluded that ethnocentrism is negatively related to change and was the best predictor of change (.64) in this study.

L. Rogers and K. Hammond (1953) randomly selected 109 cases from V.A. hospital files to test their theory that the Rorschach test is a good therapeutic outcome predictor. Although there was some evidence that extensor M's when appearing alone, are associated with improvement, these researchers concluded that the use of the Rorschach did not make

better than chance predictions under three methods of studying Rorschach protocol.

L. Roberts (1954), like Barron, found the Rorschach to be a poor predictor of therapeutic change. When using fifty-one cases on file at a V.A. center, Roberts concluded that the eleven Rorschach factors thought to have predictive significance when tested against three scales of improvement, were not significantly different. Roberts did, however, conclude that a combination of color responses warrants further study. These findings most nearly parallel those of Harris and Christiansen (1946) who stated that the average scores for the upper and lower halves of their total group were not significantly different.

One may thus conclude from these early studies, that the MMPI, particularly the Depression (D) and Paranoia (Pa) scales, Barron's Ego-strength scale, and the ethnocentrism scale are good predictors of therapeutic outcome. The traditional scoring of the Rorschach did not make better than chance predictions in the previous research.

In more recent studies, researchers have examined the Miller Analogies Test (MAT), the Strong Vocational Interest Blank (SVIB), the Repertory Grid, and client and therapist rating scales in addition to the Rorschach and MMPI scales, as predictors of therapeutic outcome.

In a study involving two groups of white male inpatients at a V.A. hospital, Adams and Cooper (1962) compared Cartwright's Rorschach Prognostic Rating Scale (RPRS) and Klopfer's Rorschach Prognostic Rating Scale (RPRS). These researchers found Cartwright's modification to be highly correlated with Klopfer's scale. When Barron's Ego-strength scale was correlated with the two Rorschach measures, however, the resulting correlation was not significant in that Barron's Ego-

strength scale did not measure some of the personality variables as adequately as the two Rorschach measures of ego-strength.

In a study using graduate students in a V.A. training program, Carlson (1969) extended a previous study done by Kelly and Fiske (1951) which showed that only intellectual aspects of success in clinical training could be reliably predicted. Kelly and Fiske had concluded that only the MAT and the SVIB had any predictive value at all. In his study, Carlson developed a Rorschach Index on the basis of the empirical study of a small number of cases from a V.A. sample. The Rorschach Index gave a significantly higher proportion of correct predictions of failure than the SVIB or MAT, but the SVIB and MAT were more accurate in predicting success. The author, however, points out that the Rorschach Index demands a degree of maturity, differentiation, and experience-in-living which may not be readily found in graduate students.

N. Endicott and J. Endicott (1964) conducted an outcome study using the Rorschach PR scale. They hypothesized that the Rorschach attempts to predict the results of psychotherapy through measuring the individual's "adjustment potential" or "ego-strength." On the basis of their study, Endicott and Endicott concluded that the Rorschach is a more valid prognostic instrument than the MMPI. Their results supported the hypothesis that RPRS scores are significantly correlated with improvement in an untreated group of psychiatric patients.

In a previous study, R. Cartwright (1958) used thirteen pre-therapy records to evaluate the Rorschach PR scale in predicting response to client-centered therapy. Completed cases were rated on a nine-point scale by the client's therapist. The pre-therapy total weighted score was found to predict the success of the therapy as measured by the

counselor's rating of the case at post-therapy. Cartwright also concluded that M, color, and form level could be combined to increase the predictive power of the total score for this group.

Another measure used to predict therapeutic outcome is the Repertory Grid devised by Kelly (1969). Ryle and Lunghi (1969) used such a test by first collecting from the subject a list of names of significant other people and then eliciting the descriptions used to discriminate between pairs or triads of names from this list. Even though the Repertory Grid provides a map of the individual's key relationships, the authors concluded that predictors are best confined to changes in construct correlations and distances between elements.

Garfield, Praeger, and Bergin (1971) used eight measures to predict therapeutic outcome. These measures combined a factor analysis approach that included: (1) client-self-evaluation, (2) therapist-supervisor evaluation, (3) ego-strength variables, and (4) mixed loadings. Garfield et al concluded that factor analysis assists in interpreting the results by showing that there are separate factors running through the criterion matrix.

The results of the study by Garfield et al (1971) support the conclusion that there is a low degree of relationship existing among diverse criteria when measuring patient variables. High loadings of the MMPI Depression scale showed a sensitive index of changes for Factor I, while the therapists' ratings were good indices for Factor II. In addition, the authors concluded that ratings by clients, therapists, and supervisors are more positive in their evaluation of therapeutic success.

Aronson and Weintraub (1968) successfully used the comparison of scores from an initial patient functioning level scale and a four-point therapist rating scale to measure several therapy outcome variables. By using these scales, Aronson and Weintraub were able to conclude that a typical analytic patient shows relatively little change during the early stage of psychoanalysis, and that change, when it begins, is relatively rapid and covers a number of essential areas in life.

In another study designed to predict therapeutic outcome, Aronson and Weintraub (1969) again used the initial functioning level scale and the four-point therapist rating scale. By using the scales as predictive measures, the authors were able to determine which patients were likely to improve, as well as to distinguish those patients who were likely to remain in therapy, from those who were apt to terminate short of completion.

It is apparent, then, from the aforementioned research, that there are several problems encountered when one attempts to predict therapeutic outcome. Luborsky et al (1971) list some valuable suggestions for research on therapeutic outcome:

1. Use multiple predictors.
2. Include variables from both the patient and the therapist at the same time.
3. Since the prediction seems to be an evaluation of the patient as he is now, with the expectation that he will be somewhat the same later on, make the best estimate of where the patient will be by adding some increase to the level at which the patient is on at the present.
4. Take into account the type of change that the patient and the therapist are anticipating.
5. Interview the patient during a sample of early sessions in order to obtain predictive variables.

Because patient variables are important in predicting successful therapy, the present study will combine patient responses on the Social History Questionnaire (Best, 1971) with therapists' ratings of improvement in psychotherapy. In studies done by Jachim (1972) and Crowley (1974), the Social History Questionnaire (Best, 1971) proved to be a good predictor of whether or not a patient would remain in therapy or terminate short of completion. In measuring improvement in this study, a narrow conception of response to psychotherapy, devised by Rae Carlson (1969), will be used. The question, "Did the patient improve or not?", will be asked. "Improve" will mean some fairly general changes in the patient's state from bad to good. The improved patient will feel better, will be more comfortable, and take more interest in life. Important interpersonal relations will be straightened out, physical symptoms will have been relieved or cured, and there will have been an increase in insightful remarks and behavior. In using this criteria, Carlson concluded that therapist bias is not a critical factor, and that because of the therapist's involvement, he is qualified to rate the patient's improvement.

The purpose of the present study is to develop subscales for the prediction of therapeutic outcome. Subscales will be developed by using therapists' ratings to identify those patients who improve in therapy and those who do not. The subscales will consist of items from the Social History Questionnaire that differentiate between the "improved" and the "not improved" patient.

METHOD

Subjects

A random sample of 100 adult patients was drawn from the patient population at a small mid-western mental health center. There were 26 males and 24 females in the "improved" group, and 26 males and 24 females in the "not improved" group. The average age of the patient was 26. A total of six therapists rated the patients on their degree of improvement. The therapists included one Ph.D. Psychologist, two with Masters of Social Work, and three with Masters of Science in Psychology. The average number of years of experience for the therapists was six.

Measurement Instruments

The Social History Questionnaire (Best, 1971), a paper and pencil inventory consisting of 339 items, was given to each patient prior to therapy. The SHQ is a self-disclosure questionnaire that gives information about 21 different areas of the patient's life including symptoms, interpersonal relations, childhood, relationships with parents, information about parents, vocation, miscellaneous information, and treatment. The test-retest reliability for this questionnaire is .89 for college students, with a split-half reliability of .91 for both college students and mental health clinic patients.

The therapists' ratings from the clinic records were used as indicators of the patients' improvement. After termination of therapy, each patient was given a rating of "recovered," "improved," or "not improved" by his therapist.

Procedure

Administration of the Social History Questionnaire. All the clients in the initial sample completed the SHQ shortly after their

initial contact with the clinic. The SHQ was self-administered with no required time limit for completion. The completed questionnaires were kept in the clinic file.

Final Sample. Each client admitted to psychotherapy had an average of one weekly therapeutic interview. The majority of the clients were given neurotic or character disorder diagnoses. The diagnoses were made in staff meetings by qualified personnel on the basis of intake interviews, and occasionally, psychological test data. The actual type of individual psychotherapy administered varied according to the needs of each individual client. However, all patients were seen in individual psychotherapy. The average length of therapy was 50 minutes.

After examining the therapists' ratings, each subject was placed in one of two groups: (1) "improved," and (2) "not improved."

Item Selection. The responses to items on the SHQ's completed by the "improved" clients and the "not improved" clients were transferred to IBM scoring sheets. Responses to items were tabulated by the Model 50 IBM computer. The computer calculated the proportion of responses on each item for both groups. Differences between proportions for the "improved" and "not improved" were then examined for each item. Finally, those items on the SHQ that differentiated between the two groups at the .05 level of significance or beyond were selected.

Subscales. Those items that differentiated between the two groups at or beyond the .05 level of significance were combined with unit weights into subscales appropriate for the total, male, and female groups. SHQ answer sheets for the total sample were then scored using the subscale scoring templates.

Norms for the Subscales. Norms for the subscales were established by computing the frequency of scores for all subjects in the initial sample. A high score typified an "improved" client, while a low score typified a "not improved" client.

Expectancy Tables. In order to make the high and low scores more indicative of the "improved" clients and the "not improved" clients, expectancy tables were constructed. After the tables were constructed, cutting scores were established for the entire sample.

The expectancy tables were constructed to facilitate a more accurate prediction of therapy outcome. A future client receiving a score below the established cutting score would be expected not to improve during psychotherapy, while a score above the cutting point would indicate that the client would improve during the course of psychotherapy.

Analysis. The statistics chosen for item analysis were taken from Guilford (1956). The statistics were used in testing the significance of a difference between uncorrelated proportions. The following formula was utilized and the .05 level of significance was sought:

$$\bar{z} = \frac{p_1 - p_2}{\bar{p}_e \bar{q}_e \dfrac{N_1 + N_2}{N_1 N_s}}$$

where $\bar{p}_e$ is the weighted mean of two sample proportions and where $\bar{q}_e = 1 - \bar{p}_e$.

Those items found to differentiate the two criterion groups at the .05 level of significance were included in the subscales.

Because of the many items, a large number of tests of significance between proportions was required. In order to facilitate such calculations, the Lawshe-Baker Nomograph (Downie and Heath, 1959) for testing the significance of the differences between two percentages was used. The Lawshe-Baker Nomograph takes the $\bar{z}$ formula presented above into account. The Nomograph made possible a more immediate determination of whether or not each item was significant, and at what level it was significant.

RESULTS

Item Analysis

The responses of the total "improved" group and the total "not improved" group were compared for each of the 393 Social History Questionnaire items. A test of significance between proportions of group scores on each item was made through the use of a $\bar{z}$ ratio. Differences for 26 items were significant at or beyond the .05 level. The significant items are presented in Table 1.

The 26 significant items were combined to make a subscale having a total possible score of 26. Each item in the subscale was given a unit weight of one. Thus, the maximum possible score that each subject could obtain was 26, while the minimum possible score that each subject could obtain was 0. Each unit weight was based on the total "improved" group's response to each item. Therefore, the higher the score on the subscale, the more likely the person is to improve. The lower the score, the less likely the person is to improve. A scoring key for the 26 total subscale items is included in Table 1.

Next, the 393 responses of the male "improved" group and the male "not improved" group were compared in the same way as they were for the total group. Again, a test of significance was made, and 30 items were significantly different at or beyond the .05 level. The significant items and a scoring key for the male subscale are presented in Table 2.

Finally, the responses of the female "improved" group and the female "not improved" group were compared on each Social History Questionnaire item. A test of significance was again made, and 33

Table 1

Social History Questionnaire Items

Differentiating Total Criterion Groups

Key	Item No.	Statement
F	28	I had my first nervous breakdown after I was 25 years old.
T	30	I usually make a good impression on other people.
F	32	I tried to kill someone before.
T	36	I am a very cooperative person.
F	54	I always agree with people.
F	106	Sometimes I have trouble breathing.
F	146	I am addicted to drugs and will do anything to get them.
F	170	I would like to be in group psychotherapy.
F	197	I would like to be hospitalized for my mental problems.
F	231	My mother was too strict with me when I was growing up.
F	234	I was afraid of many things when I was little.
F	246	My father graduated from college.
T	251	I live in or near the downtown section of my city.
F	255	My father continued going to school after he graduated from college.
F	258	No matter what I did it was almost impossible for me to please my mother.
F	278	I have lived in the same place for more than one year.
T	283	Skilled work is something I would like to do.
T	295	My mother had trouble with the law when I was little.
T	309	My father had much trouble with his health when I was little.
F	319	People expect more of me now than they did before.
T	321	Even when I was bad my mother almost never punished me.

Key	Item No.	Statement
F	323	It is very difficult for me to talk to other people about myself.
F	330	My mother usually punished me by giving me a spanking.
F	352	I did not live with my parents when I was a child.
F	360	I have very few crying spells.
F	375	I have no particular feelings of any kind toward my mother.

Table 2

Social History Questionnaire Items

Differentiating Male Criterion Groups

Key	Item No.	Statement
T	3	I like taking the responsibility for getting things done.
F	13	I get irritable whenever people make me do anything.
T	19	This is my first serious mental disturbance.
F	24	I often hold a grudge against people.
F	31	I have been in trouble at least onece for getting into fights with people.
F	32	I tried to kill someone before.
T	36	I am a very cooperative person.
T	43	I have very few physical problems.
F	48	I expect everyone to admire me.
F	54	I always agree with people.
T	57	I have as much self-confidence as most people.
T	63	I am a friendly person.
T	90	I usually like people.
F	206	Sometimes I have trouble breathing
F	114	I often feel that I am just no good.
T	117	I am usually a considerate person.
T	126	I almost always forgive people when they make mistakes.
F	129	I am often cruel and unkind with people.
F	146	I am addicted to drugs and will do anything to get them.
F	147	I am often angry with others and I let them know about it.
F	155	I often feel that life is not worth living.

Key	Item No.	Statement
F	177	I do so many things to get people to take care of me that they usually think of me as a clinging vine.
T	184	Sometimes I do not know who I am or what my name is.
F	197	I would like to be hospitalized for my mental problems.
T	251	I live in or near the downtown section of my city.
F	311	In school I often got into trouble with the teachers.
T	331	My mother died before I was 10 years old.
T	361	My mother died before I was 10 years old.
F -	370	My father died before I was 10 years old.
F	375	I have no particular feelings of any kind toward my mother.

items were significantly different at or beyond the .05 level of significance. The significant items and a scoring key for the female subscale are presented in Table 3.

Norms for the Subscales

Norms for each subscale (total, male, and female) were established by constructing a frequency distribution for the scores of the subjects on each of the appropriate subscales. Percentiles were then obtained from this frequency distribution.

Subscale scores for the total group ranged from 0 to 23. Approximately 50% of the subjects received a score of 16 or less, and approximately 50% of the subjects received a score of 16 or more. The mean score for the total subscale was 15, with a standard deviation of 4. Scores for the total subscale are presented in Table 4.

Subscale scores for the male group ranged from 2 to 27. Approximately 50% of the male subjects received a score of 20 or less, and approximately 50% of the male subjects received a score of 21 or more. The mean score for the male subscale was 20, and the standard deviation was 7. Scores for the male subscale may be seen in Table 5.

Finally, subscale scores for the female group ranged from 6 to 27. Approximately 50% of the female subjects received a score of 15 or less, and approxiamtely 50% of the female subjects received a score of 16 or more. The mean score for the female subscale was 15, with a standard deviation of 6. The scores for the female subscale are presented in Table 6.

The data presented in Tables 7, 8, and 9 show the frequency distributions of the scores in each subscale in addition to a distribution of percentages for each group. The results of these distributions

Table 3

Social History Questionnaire Items

Differentiating Female Criterion Groups

Key	Item No.	Statement
T	11	I have been in trouble because of the bad things I have done.
F	20	I have never been arrested.
T	24	I often hold a grudge against people.
T	29	I have been arrested several times.
T	48	I expect everyone to admire me.
T	55	I often feel tense and nervous.
T	61	I often worry about my health.
T	74	I have been involved in sex acts with others of my own sex.
F	87	I am easily embarrassed.
F	97	I have had problems with asthma.
T	101	I have a definite problem with alcohol.
F	184	Sometimes I do not know who I am or what my name is.
T	224	I think of myself as being in the "working class" of people.
F	229	I am retired at the present time.
F	231	My mother was too strict with me when I was growing up.
F	234	I was afraid of many things when I was little.
F	235	When I was a child my family was very large.
T	239	In school I liked math and science.
F	246	My father graduated from college.
T	248	In school I made good grades.
T	251	I live in or near the downtown section of my city.

Key	Item No.	Statement
T	260	I live alone.
T	283	Skilled work is something I'd like to do.
T	307	I had no unusual childhood illness when I was little.
T	320	I often had fights with the other children in school.
T	321	Even when I was bad my mother almost never punished me.
T	328	People expect less of me now than they did before.
F	331	My mother died before I was 10 years old.
T	333	I did not have to wait very long before getting an appointment here.
T	335	My father usually punished me by scolding or by giving me a "lecture."
F	360	I have very few crying spells.
F	361	My mother died before I was 10 years old.
T	370	My father died before I was 10 years old.

Table 4

Norms for Total Group

Test Scores	f	cf	Percentile
26	0	100	100
25	0	100	100
24	0	100	100
23	1	100	100
22	0	99	99
21	2	99	99
20	4	97	97
19	12	93	93
18	14	81	81
17	10	67	67
16	8	57	57
15	14	49	49
14	9	35	35
13	6	26	26
12	4	20	20
11	1	16	16
10	5	15	15
9	3	10	10
8	1	7	7
7	0	6	6
6	4	6	6
5	0	2	2
4	1	2	2
3	0	1	1
2	0	1	1
1	0	1	1
0	1	1	1

N = 100

Table 5

Norms for Male Group

Test Scores	f	cf	Percentile
30	0	52	100
29	0	52	100
28	0	52	100
27	1	52	100
26	5	51	98
25	3	46	89
24	4	43	83
23	6	39	75
22	4	33	64
21	7	29	56
20	1	22	42
19	4	21	40
18	2	17	33
17	4	15	29
16	2	11	21
15	1	9	17
14	0	8	15
13	2	8	15
12	0	6	12
11	1	6	12
10	2	5	10
9	1	3	6
8	0	2	4
7	1	2	4
6	0	1	2
5	0	1	2
4	0	1	2
3	0	1	2
2	1	1	2
1	0	0	0
0	0	0	0

N = 52

Table 6

Norms for Female Group

Test Scores	f	cf	Percentile
33	0	48	100
32	0	48	100
31	0	48	100
30	0	48	100
29	0	48	100
28	0	48	100
27	1	48	100
26	0	47	98
25	0	47	98
24	0	47	98
23	2	47	98
22	2	45	94
21	1	43	90
20	2	42	88
19	5	40	83
18	5	35	73
17	4	30	63
16	2	26	54
15	6	24	50
14	0	18	38
13	4	18	38
12	4	14	29
11	4	10	21
10	2	6	13
9	1	4	8
8	1	3	6
7	0	2	4
6	2	2	4
5	0	0	0
4	0	0	0
3	0	0	0
2	0	0	0
1	0	0	0

Table 7

Frequency Distribution and Percentage
Distribution of Subscale Scores For Total Group

Total No.	No. receiving each score		Test Scores	% receiving each score		Total Per Cent
	"Not Improved"	"Improved"		"Not Improved"	"Improved"	
			26			
			25			
			24			
1		1	23		100	100
			22			
2		2	21		100	100
4		4	20		100	100
12		12	19		100	100
14	1	13	18	7	93	100
10	5	5	17	50	50	100
8	3	5	16	37.5	62.5	100
14	12	2	15	85.7	14.3	100
9	7	2	14	77.8	22.2	100
6	5	1	13	83.3	16.7	100
4	4		12	100		100
1		1	11		100	100
5	4	1	10	80	20	100
3	3		9	100		100
1	1		8	100		100
			7			
4	3	1	6	75	25	100
			5			
1	1		4	100		100
			3			
			2			
			1			
1	1		0	100		100
100	50	50				

Table 8

Frequency Distribution and Percentage
Distribution of Subscale Scores for Male Group

Total No.	No. receiving each score		Test Scores	% receiving each score		Total Per Cent
	"Not Improved"	"Improved"		"Not Improved"	"Improved"	
			30			
			29			
			28			
1		1	27		100	100
5	1	4	26	20	80	100
3		3	25		100	100
4		4	24		100	100
6	1	5	23	16.7	83.3	100
4	1	3	22	25	75	100
7	3	4	21	42.9	57.1	100
1		1	20		100	100
4	4		19	100		100
2	1	1	18	50	50	100
4	4		17	100		100
2	2		16	100		100
1	1		15	100		100
			14			
2	2		13	100		100
			12			
1	1		11	100		100
2	2		10	100		100
1	1		9	100		100
			8			
1	1		7	100		100
			6			
			5			
			4			
			3			
1	1		2	100		100
			1			
			0			
52	26	26				

Table 9

Frequency Distribution and Percentage
Distribution of Subscale Scores For Female Group

Total No.	No. receiving each score		Test Scores	% receiving each score		Total Per Cent
	"Not Improved"	"Improved"		"Not Improved"	"Improved"	
			33			
			32			
			31			
			30			
			29			
			28			
1		1	27		100	100
			26			
			25			
			24			
2		2	23		100	100
2		2	22		100	100
1		1	21		100	100
2		2	20		100	100
5		5	19		100	100
5	1	4	18	20	80	100
4		4	17		100	100
2	2		16	100		100
6	4	2	15	66.7	33.3	100
			14			
4	4		13	100		100
4	4		12	100		100
4	4		11	100		100
2	2		10	100		100
1		1	9		100	100
1	1		8	100		100
			7			
2	2		6	100		100
			5			
			4			
			3			
			2			
			1			
			0			
48	24	24				

indicates that a larger proportion of the "not improved" groups obtained relatively low scores, while a larger proportion of the "improved" groups received relatively high scores. Thus, the trend was for the "improved" patients to obtain higher scores and for the "not improved" patients to obtain lower scores.

Expectancy Tables

By utilizing the data in Tables 7, 8, and 9, an expectancy table was constructed for each of the three groups. Cutting scores for the total group, male group, and female group were established by an inspection of the data presented in Tables 10, 11, and 12, respectively.

Cutting scores can be established for any score in the expectancy tables. For example, if 18 is chosen as the cutting score for the total group, 97% of the total sample will be expected to improve, while 3% will not be expected to improve. Thus, if a therapist has limited funds to spend on a certain mode of therapy, and only wanted those clients who had a good chance of improving to participate in the therapy, he might use 18 as a cutting point. On the other hand, if a therapist wanted to use a certain technique for only those clients who were the most seriously disturbed, and therefore, had little chance of improving, he might chose 6 as a cutting score. Thus, 80% of these subjects would be expected to not improve, while only 20% would be expected to improve. The expectancy tables for each group are designed to be flexible and to be used in accordance with the needs of the individual therapist.

Table 10

Expectancy Table for Total Group

Total No.	No. receiving each score		Test Scores	% receiving each score		Total Per Cent
	"Not Improved"	"Improved"		"Not Improved"	"Improved"	
0			24-26			
3		3	21-23		100	100
30	1	29	18-20	3.3	96.7	100
32	20	12	15-17	62.5	37.5	100
19	16	3	12-14	84.2	15.8	100
9	7	2	9-11	77.8	22.2	100
5	4	1	6- 8	80	20	100
1	1		3- 5	100		100
1	1		0- 2	100		100
100	50	50				

Table 11

Expectancy Table for Male Group

Total No.	No. receiving each score		Test Scores	% receiving each score		Total Per Cent
	"Not Improved"	"Improved"		"Not Improved"	"Improved"	
			30-32			
1		1	27-29		100	100
12	1	11	24-26	8.3	91.7	100
17	5	12	21-23	29.4	70.6	100
7	5	2	18-20	71.4	28.6	100
7	7		15-17	100		100
2	2		12-14	100		100
4	4		9-11	100		100
1	1		6- 8	100		100
			3- 5			
1	1		0- 2	100		100
52	26	26				

Table 12

Expectancy Table for Female Group

Total No.	No. receiving each score		Test Scores	% receiving each score		Total Per Cent
	"Not Improved"	"Improved"		"Not Improved"	"Improved"	
			32-33			
			30-31			
			28-29			
1		1	26-27		100	100
			24-25			
4		4	22-23		100	100
3		3	20-21		100	100
10	1	9	18-19	10	90	100
6	2	4	16-17	33.3	66.7	100
6	4	2	14-15	66.7	33.3	100
8	8		12-13	100		100
6	6		10-11	100		100
2	1	1	8- 9	50	50	100
2	2		6- 7	100		100
			4- 5			
			2- 3			
			0- 1			
48	24	24				

DISCUSSION

A comparison between all three subscales (total, male, and female) indicates that the total subscale and the male subscale are more consistent with earlier research findings than the female subscale. For example, both the total subscale and the male subscale support the research indicating that the less serious the diagnosis, the better the chances for therapeutic improvement (Barron, 1953). The female subscale, however, shows serious disturbances to be a positive indicator of improvement. In another example, the total subscale and the male subscale agree with previous findings in that insight and self-awareness are positively correlated with improvement (Conrad, 1952; Rosenburg, 1954), while the female subscale does not support this hypothesis.

Both the total subscale and the female subscale indicate that educational achievement and social status are negatively correlated with therapeutic improvement. This finding differs from the results of the male subscale in addition to the previous research findings done by Bloom (1956) and Casner (1950).

In another area, both the total subscale and the male subscale indicate somatic concerns to be negatively correlated indicators of change. These results are consistent with the research done by Rosenburg (1954) and Stone et al (1961).

All three subscales indicate that some anxiety is necessary for therapeutic improvement. In addition, responses to item 251 (I live in or near the downtown section of my city), the single statement significant ($p < .05$) for all three subscales, indicates that living in or near the downtown section of a city is positively correlated

to therapeutic change. This statement may support previous research (Jaco, 1960) that shows people living in the central part of town are usually more disturbed, and therefore may be more likely to seek professional help. According to all three subscales, this type of client has a good chance for therapeutic improvement.

The content of items 54 (I always agree with people) and 323 (It is very difficult for me to talk to other people about myself) on the total subscale indicates that by responding "false" to these statements, the "improved" group exhibits some degree of self-confidence and personality integration. These results are consistent with the research done by Conrad (1952) and Rosenburg (1954) that shows personality integration and insight to be positively correlated with successful treatment. These findings, like the results of the male subscale, do not, however, support the research done by Raskin (1949) and Rosenbaum et al (1956) that shows these two variables to be insignificant.

Another example in the total subscale that is consistent with previous research can be found in the responses to item 360 (I have very few crying spells). The fact that the "improved" group answered "false" to this item suggests that the "improved" group may have more initial anxiety at this time than the "not improved" group. These results support the studies done by Gottschalk et al (1957), and Kirtner and Cartwright (1958).

Finally, the content of item 106 (Sometimes I have trouble breathing) on the total subscale relates to somatic concerns. By answering "false" to this statement, the "improved" group appears to have less somatic concerns than the "not improved" group. This hypothesis is substantiated by the findings of Rosenburg (1954) and Stone et al (1961) that show somatic concerns to be negative indicators of change.

However, some of the results of the total subscale do not support previous research findings. An example of this discrepancy may be found in the responses to items 246 (My father graduated from college) and 255 (My father continued going to school after he graduated from college). By answering "false" to these statements, the "improved" group shows less educational background than the "not improved" group. As in the female subscale, the answers to these items are inconsistent with earlier studies done by Bloom (1956) and Casner (1950) that show educational achievement to be positively correlated to therapeutic improvement. Another discrepancy with the Bloom and Casner studies can be seen in the responses to item 283 (Skilled work is something I would like to do). The content of this statement measures social status, and by responding "true," the "improved" group shows less social status that the "not improved" group. Likewise, by answering "true" to item 295 (My mother had trouble with the law when I was little), the "improved" group shows less social status within the family.

The differences between the "improved" group and the "not improved" group on the male subscale are also consistent with many of the earlier research findings. For example, the "improved" group responded "false" to items 32 (I tried to kill someone before), 146 (I am addicted to drugs and will do anything to get them), and 197 (I would like to be hospitalized for my mental problems). The responses to these items indicate that the "improved" group is less seriously disturbed than the "not improved" group. These answers concur with the "false" responses to items 32, 146, and 197 on the total subscale that support

the findings of Prager and Garfield (1972) that indicate that measures of felt disturbance are negatively correlated with ratings of outcome.

In further examining the male subscale, it is apparent that the "improved" males gave more "false" responses to item 24 (I often hold a grudge against people) than the "not improved" males. The answers to this item support the studies by Strupp et al (1963) and Zolik and Hollon (1960) that show defensiveness to be negatively correlated to therapeutic success.

"False" responses to items 31 (I have been in trouble at least once for getting into fights with people) and 311 (In school I often got into trouble with the teachers) are consistent with the findings by Bloom (1956), Casner (1950), and Hamburg et al (1967). The content of these statements indicates that the "improved" males have more social awareness than the "not improved" males.

Finally, answers to item 184 (Sometimes I do not know who I am or what my name is) on the male subscale substantiate the findings by Gottschalk et al (1957), and Kirtner and Cartwright (1958) that show that patients with high anxiety at the initial evaluation are likely to benefit from therapy. By responding "true" to item 184, the "improved" males show a higher degree of initial anxiety than the "not improved" males.

Like the total subscale and the male subscale, there are several items on the female subscale that support previous research. By answering "true" to items 239 (In school I liked math and science) and 248 (In school I made good grades), the "improved" females exhibit higher educational achievement than the "not improved" females. The content of these statements support the research done by Bloom (1956),

Casner (1950), and Hamburg et al (1967) that concludes that patients with high academic achievements are better suited for therapy. By responding "true" to items 55 (I often feel tense and nervous), 61 (I often worry about my health), and 360 (I have very few crying spells), the "improved" females show high initial anxiety, an hypothesis supported by the findings of the male subscale, as well as by the findings of Stone et al (1961) and Truax et al (1966).

However, several discrepancies with previous research findings appeared in the female subscale. For example, the responses of "true" to items 11 (I have been in troubles because of the bad things I have done), 29 (I have been arrested several times), 101 (I have a definite problem with alcohol), and 320 (I often had fights with the other children in school), indicate that the "improved" females have more serious diagnoses than the "not improved" females. This does not support the findings of Aronson and Weintraub (1969), who conclude that there is less improvement with a more serious diagnosis. In answering "false" to item 20 (I have never been arrested), the "improved" females indicate that they have been arrested more times than the "not improved" females. These responses show serious psychological disturbances in the "improved" group. Perhaps, however, the "improved" females are more initially disturbed, and therefore, do tend to show more improvement than the "not improved" females.

In another study, Strupp et al (1963) and Zolik and Hollon (1960) found defensiveness to be negatively correlated to therapeutic improvement. By responding "true" to item 24 (I often hold a grudge against people), the "improved" females appear to be more defensive than the "not improved" females. Unlike their counterparts on the male subscale,

the females, in responding to item 24, show defensiveness to be a positive predictor of therapeutic outcome. This finding is also inconsistent with the research done by Strupp et al (1963).

By responding "true" to items 224 (I think of myself as being in the "working class" of people) and 283 (Skilled work is something I'd like to do), the "improved" females offer another example that does not support previous research. In studies involving social status, Bloom (1956) and Casner (1950) concluded that both male and female patients with higher social achievements are better suited for therapy. The content of these statements, as answered by the females, shows that "improved" females have less social status than the "not improved" females.

Finally, the results of this study indicate that the female subscale is less consistent with previous research than either the total subscale or the male subscale. It should be noted that the past studies that have been cited have contained both males and females in their samples. Studies by Cartwright, (1955), Gaylin, (1966), and Hamburg et al (1967), indicate that both sexes have the same chance for improvement in therapy. Research done by Mintz, Luborsky, and Auerbach (1971) however, shows that women have a greater chance of improvement than men. In this study, the females who were initially more disturbed, did have a chance to improve in therapy.

Limitations

Although the present study contains one methodological improvement over previous research (Jachim, 1972), in that it investigates sex differences in the subscales, several factors that could have effected the outcome must still be considered.

The sample used in the present study is limited in that it is confined to only those clients found in a mental health center in a small mid-western town. No comparison was made between the responses of the mental health clinic clients, and the clients from another geographic area.

Another factor which must be considered is the subjectivity of the therapist's ratings. The therapist's ratings of "improved" "not improved," or "recovered" is somewhat subjective but is still consistent with the methodology used in previous research. A more objective outcome rating scale is needed for future research. However, at present there is no single outcome criteria that is universally accepted as evidence of improvement. The development of such an instrument would be a very welcome addition to outcome research in psychotherapy.

Two final factors to be considered are the selection and cross-validation of the subscale items. Since there is some probability that the subscale items could have occurred by chance ($p < 0.5$) they should not be used in clinical practice until cross-validated.

Finally, the present study did not include a cross-validation of subscale items. Due to the small number of clients available, a cross-validation could not be done. In addition, the actual item

and predictive validity of each of the three subscales remains to be established and compared in future research.

Suggestions for Further Research

There is considerable value in having a scale that predicts therapeutic outcome. One obvious suggestion in making these subscales valid, however, is the need for cross-validation. The validity of the scales and the predictive capacity of the expectancy tables should be tested in future research.

The Therapeutic-Outcome Scale, when combined with other tests and measures that predict therapeutic success, might be used as an effective tool in estimating a potential client's ability to enter into and profit from a therapeutic relationship. However, the effects of pre-judging a client's chances for improvement on the therapist's expectations must be seriously considered. With an increasing demand on mental health clinics, it is possible that a measure of a client's disposition may be helpful in utilizing a therapist's time and resources in the most efficient way possible.

Finally, an early identification of the client's chances for improvement will aid the therapist in assessing the client's needs, and in determining the most efficient mode of therapy for that particular client. The Social History Questionnaire is the first step in learning more about these needs, and the Therapeutic-Outcome Scale is offered as a second step to consider in learning more about the individual client and his chances for a successful therapeutic experience.

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